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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,488	03/08/2001	Eiichi Takahashi	1046.1245	2200

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EXAMINER

QURESHI, SHABANA

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/800,488

Applicant(s)

TAKAHASHI ET AL.

Examiner

Shabana Qureshi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 0801.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-13 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 08 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 7 recites the limitation "the sequence number" in line 11. There is insufficient antecedent basis for this limitation in the claim.
3. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Language is unclear, incohesive, and disorganized. Also clarify "this" in claim 1, line 10.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 6-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Leonidas Georgiadis (EP 459,134 A2).

Regarding claims 1, 8, and 9, Georgiadis teaches a network server load detection method comprising:

- the step of monitoring the communication between a client and a server and the load on the server (page 5, lines 24-30);

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- the step of detecting a change in server load, and recording the maximum load (page 5, lines 30-49);
- the step of determining, if the load decreases at the present time with respect to the maximum load, that the server is under a high load (page 5, lines 30-49).

As per claim 2, Georgiadis teaches a network server load detection method according to claim 1, further comprising the step of counting the number of connections (page 5, lines 9-15) and the load until a count of communications monitored reaches a monitored communication minimum count and until a count time reaches a monitor minimum time by use of the monitored communication minimum count and monitor minimum time (page 5, lines 9-15).

As per claim 4, Georgiadis teaches a network server load detection method according to claim 1, further comprising:

- the step of retaining information of the communication of the start of connection till the connection is ended or established (page 6, line 16 – page 7, line 39);
- the step of detecting the communication of the start of connection for re-connection executed when judging when the client fails to connect on the basis of the information retained (page 6, line 16 – page 7, line 39); and
- the step of setting a rate at which the communication of the re-connection occupies the number of the communications of the start of connection as a load of the server and, if this rate is high, judging that the server is under a high load (page 6, line 16 – page 7, line 39).

As per claim 6, Georgiadis teaches a network server load detection method according to claim 1, further comprising:

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- the step of obtaining a sequence number from the communication to the server from the client (page 9, lines 45-50);
- the step of retaining maximum value of the sequence number until the connection is ended since the start of connection (page 9, lines 45-50);
- the step of comparing the sequence number of the communication received with the sequence number retained (page 9, lines 45-50); and
- the step of excluding, if the sequence number obtained from the communication is smaller than the sequence number retained, this communication from counting (page 9, lines 45-50).

As per claim 7, Georgiadis teaches a network server load detection method according to claim 1, further comprising:

- a step of counting, if a sequence number obtained from a communication is smaller than the sequence number retained, the communication data after the executing a weighting process thereon (page 5, lines 22-29), or predicting a communication data size when there is no problem on a route from the two sequence numbers, and counting the predicted data size for detecting the load (page 4, lines 28-35; page 13, lines 38-44).

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 10-13 rejected under 35 U.S.C. 102(e) as being anticipated by Balakrishnan Narendran et al (US Patent No. 6,070,191).

As per claim 10, Narendran teaches a network server sharing system for transferring data to a plurality of servers from a client via a network, comprising:

- routing means for transferring the data transmitted from the client to any one of the servers in a way of changing a destination of the data (column 3, lines 39-55);
- connection management means for retaining a mapping between the data and the server and indicating the destination to the routing means (column 5, lines 20-46; column 7, lines 1-7);
- server sharing means for obtaining throughputs of the server, the client and a route by counting them, determining a correspondence between the data and the server by use of a function according to a service distribution rate based on the throughput, and transferring this correspondence to the connection management means (column 6, line 52 – column 7, line 60).

As per claim 11, Narendran teaches a network server sharing system according to claim 10, wherein the server sharing means sets, as the distribution rate, a modified probability distribution obtained by modifying a probability distribution corresponding to the throughput of the server so that the probability distribution is made more approximate to a uniform distribution as the throughput of the client and of the route become lower (column 3, lines 19-23; column 13, 22-33).

As per claim 12, Narendran teaches a network server sharing system according to claim 10, wherein the server sharing means obtains a distribution of the throughputs of the client and of the route with respect to the client that is now on the service, also obtains a modified probability distribution by executing such a modification as to make the probability distribution corresponding to the throughput of the server more approximate to the uniform distribution as the throughputs of a new-connected client and of the route become lower for the distribution and reversely make the throughput of the server more outstanding as the throughputs of a new-connected client and of the route become higher, and sets this modified probability distribution as a distribution rate (column 3, lines 19-23; column 9, lines 24-67; column 13, lines 22-33).

As per claim 13, Narendran teaches a network server sharing system according to claim 10, wherein a plurality of server sharing means are provided and each selected per client and service (column 3, lines 1-11; column 4, lines 41-50).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 5, 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leonidas Georgiadis (EP 459,134 A2).

As per claim 3, Georgiadis teaches a network server load detection method according to claim 1, further comprising the step of recognizing the communications of a start and end of the connection (page 6, line 16 – page 7, line 39). Georgiadis does not explicitly state excluding communication data sizes of the start and end of the connection from the load detection target. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to neglect initial and final data because many variables interfere with data when measurement begins and ends and these two data do not represent the overall behavior of the system.

As per claim 5, Georgiadis teaches a network server load detection method according to claim 1, further comprising:

- the step of obtaining a distribution of the communication data sizes from the clients (page 9, lines 20-25);

Georgiadis does not explicitly state:

- the step of distinguishing between extremely small pieces of data unrelated to the load of the server from the communication data size distribution; and

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- the step of eliminating the extremely small pieces of communication data from the judgment about the load.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to eliminate erroneous data not representative of the overall behavior of the system because it would cause a higher standard deviation in the data.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shabana Qureshi whose telephone number is (703) 308-6118. The examiner can normally be reached on Monday - Friday, 8:30am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on (703) 308-6662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shabana Qureshi
Examiner
Art Unit 2155

22 March 2004


HOSAIN ALAM
SUPERVISORY PATENT EXAMINER